

10/544271

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JC09 Rec'd PCT/PTO 03 AUG 2005

Forming gallium nitride-based nitride layer

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Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Week	Type
KR 2004063073	A	20040712	KR 200385334	A	20031128	200478	B
KR 448352	B	20040910	KR 200385334	A	20031128	200508	
WO 200553042	A1	20050609	WO 2004KR2114	A	20040821	200538	

Priority Applications (Number Kind Date): KR 200385334 A (20031128)

Patent Details

Patent	Kind	Language	Page	Main IPC	Filing Notes
KR 2004063073	A		1	H01L-033/00	
KR 448352	B			H01L-033/00	Previous Publ. patent KR 2004063073
WO 200553042	A1	E		H01L-033/00	
Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW					
Designated States (Regional): AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW					

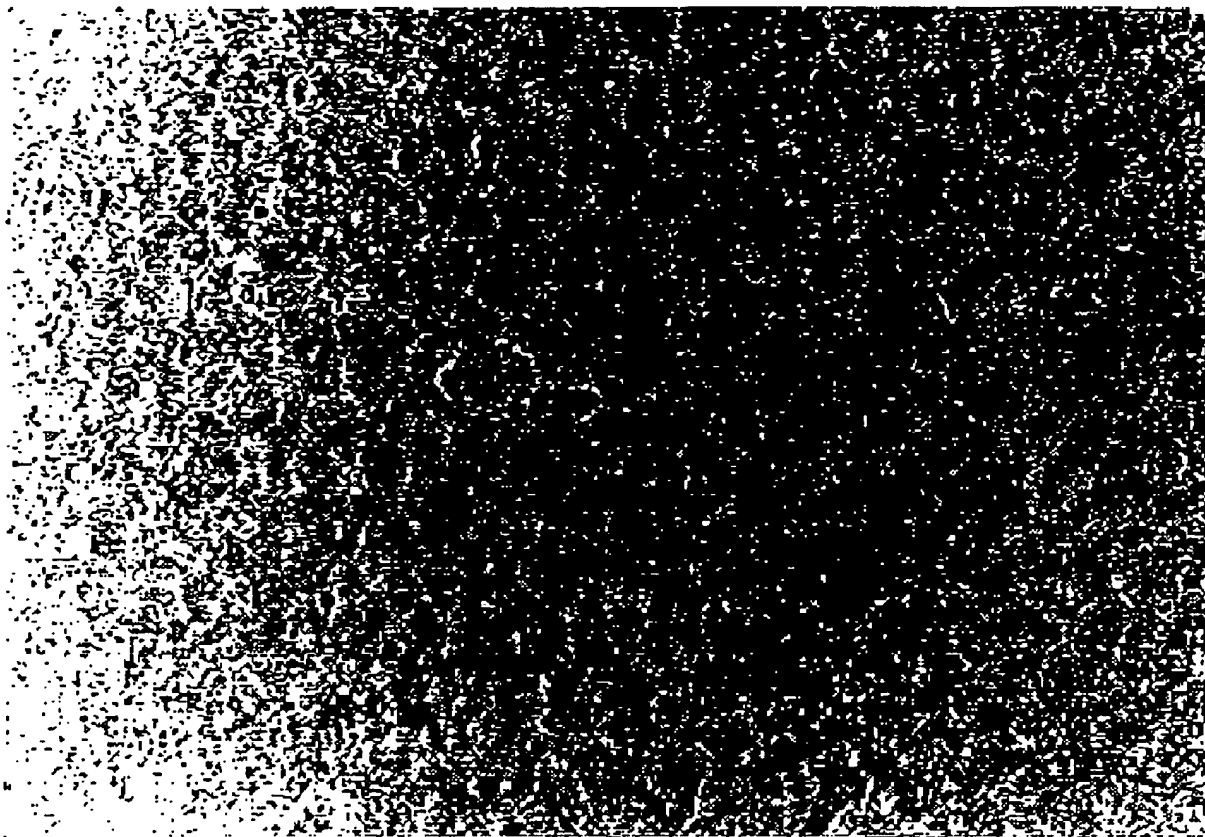
Abstract:

KR 2004063073 A

NOVELTY A method for forming GaN-based nitride layer is provided to improve cohesion of a SiC buffer layer and a GaN-based nitride layer by forming a wetting layer on the SiC buffer layer, and to form a high-quality GaN layer by optimizing the formation of the SiC buffer layer and the wetting layer.

DETAILED DESCRIPTION A silicon carbide buffer layer is formed on a sapphire substrate. A wetting layer is formed on the silicon carbide buffer layer, having a composition of $Al(x_1)Ga(y_1)In(z_1)N(0at\ most\ x_1\ at\ most\ 1, 0at\ most\ y_1\ less\ than\ 1, 0at\ most\ z_1\ at\ most\ 1, x_1+y_1+z_1=1)$. A nitride layer including a GaN component is formed on the wetting layer.

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Dialog® File Number 351 Accession Number 16633427